FAIRFAX COUNTY PARK AUTHORITY

MEMORANDUM

TO: Chairman and Members
Park Authority Board

VIA: Michael A. Kane, Director

FROM: Cindy Messinger, Director
Resource Management Division

DATE: June 23, 2006

Agenda

Resource Management Committee
Wednesday, June 28, 2006 – 6:30 p.m.
Board Room – Herrity Building
Chairman: Frank S. Vajda

1. Scope Approval – Huntley Meadows Central Wetland Restoration – Action*

*Enclosures

cc: Timothy K. White
Leadership Team

Board Agenda Item
July 12, 2006

ACTION -

Scope Approval – Huntley Meadows Central Wetland Restoration (Lee District)

ISSUE:
Approval of the project scope to design the wetland restoration and to conduct the first phase of restoration improvements to the central wetland at Huntley Meadows Park.

RECOMMENDATION:
The Park Authority Director recommends approval of the project scope to design the wetland restoration and to conduct the first phase of restoration improvements to the central wetland at Huntley Meadows Park.

TIMING:
Board action is requested on July 12, 2006, in order to maintain the project schedule.

BACKGROUND:
Huntley Meadows is a 1,428-acre park. A highlight of this nature preserve is the central wetland with its wildlife viewing boardwalk and platforms. Due to siltation from upstream development and unpredictable beaver activity, the wetland is drying up.

For the last 30 years, Huntley Meadows Park patrons have visited the park to experience its unique wetlands. They come for the "visitor/wildlife encounter." The park is regionally recognized and admired for its diversity of wildlife and visitor accessibility to aquatic flora and fauna. At one point, "Defenders" magazine (a national publication) listed Huntley Meadows Park as one of the nation's top 25 birding hotspots.

Park Authority staff recognized the possibility of the beaver moving around over time and commissioned a study in the early 1990s to make recommendations on wetlands management in order to maintain wetlands in the center of the park in support of the 1976 park master plan. The 1993 "TAMS" (TAMS Consultants, Inc.) report recommended constructing a water control device to allow staff to manipulate water levels independent of the beaver to manage the wetlands. In addition, removal of many tons of accumulated silt and reshaping of the wetlands to reintroduce diversity of habitat types is critical to long-term function and success.

Beginning in the late 1980s, large-scale development upstream of the park with poorly constructed and maintained erosion and sediment controls, sent up to 18 inches or more of silt into the Huntley wetlands. These occurrences sparked outrage by many citizens and gained the attention of numerous local officials. However, once the silt entered the park, the damage was done. With the loss of depth due to the siltation, many wildlife species began to disappear or become less numerous. In the last several years, the beaver that largely caused the formation of the wetland and maintained it for nearly 30 years, stopped maintaining the primary dam as they concentrated on downstream areas, resulting in dramatic drops in water levels and the central wetland drying out completely in the summer of 2005.

In January 2005, the Friends of Huntley Meadows posted a survey on their website asking respondents if they would like the park to control the height of the water level in the wetland. As of summer 2005, of the 77 respondents, 73 expressed support for control of the water level.

A project team convened in September 2005 to develop a vision and scope that were subsequently reviewed by the Planning and Development Division, Department of Public Works and Environmental Services Stormwater Division, and Department of Planning and Zoning staff, who believe that the approach and desired outcomes are sound.

This project is also consistent with the 1976 Huntley Meadows Park Master Plan and the County's Comprehensive Plan which seeks to protect and preserve the wetlands in Huntley Meadows and Dogue Creek and recognizes them as being unique and irreplaceable for their positive water quality and wildlife value.

The project team held preliminary meetings and discussions with the Park Authority open-ended contractor Burgess & Niple, to discuss their potential involvement for project administration services. Staff anticipates that the project will involve the following aspects:

- Development of a comprehensive wetland management plan that will guide design, construction and long-term management.
- Construction of an access road to the wetland site.
- Construction of a water control device on the downstream end of the wetland and possibly a forebay structure at the upstream end to capture and remove future excessive sediment flows.
- Removal and disposal (likely on-site) of accumulated silt/soil.
- Grading and constructing a diverse topographic features to include deep pools, open water and interconnecting channels to reproduce the diverse types of habitat that existed in the wetland when it formed in the 1970s.

- Providing extensive native plantings to stabilize soils and complete habitat restoration.
- Implementation of a long-term monitoring and maintenance plan to measure success, design corrective measures and control invasive species.

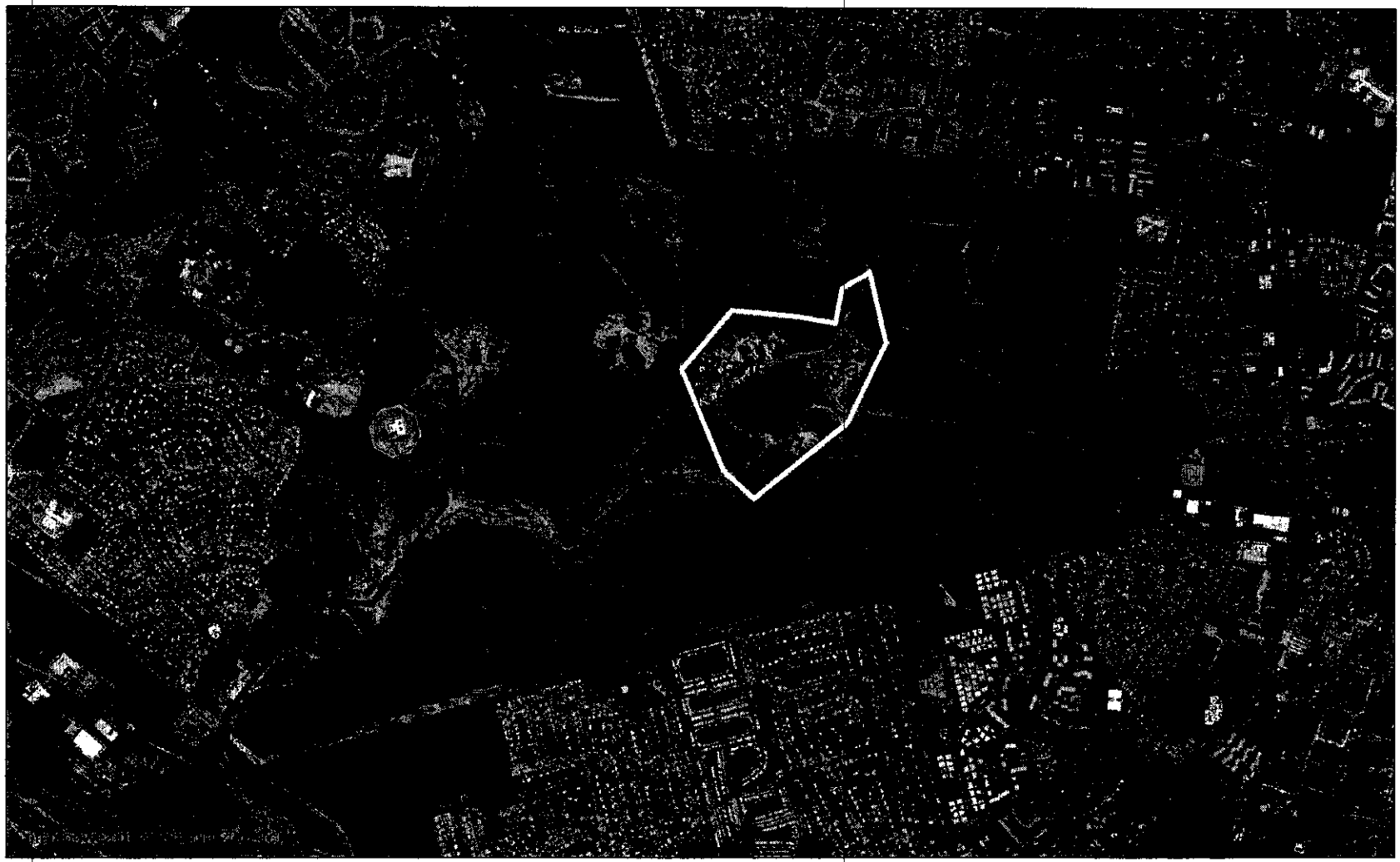
The preliminary cost estimate for the entire project is $2,250,000. As project funding is insufficient, staff recommends implementation in two phases. The first phase will include survey, hydrologic and soils analysis, a wetland management plan, environmental assessment, public meetings, design and construction plans preparation, permitting and construction of site access and water control structures. The first phase cost totals $700,000. Phase two will involve the removal and stabilization of accumulated silt/soils, sculpting of the wetland, extensive plantings and continued implementation of the monitoring and maintenance programs. Phase Two implementation is predicated on obtaining additional funding to support this project.

FISCAL IMPACT:
Based on preliminary estimates, funding in the amount of $700,000 is necessary to conduct project design and to construct Phase One improvements for this project. Funding is currently available in the amount of $700,000 in Project 475004, Stream Restoration, Fund 370, 2004 Park Bond.

ENCLOSED DOCUMENTS:
Attachment 1: Huntley Meadows Central Wetland Restoration Aerial View
Attachment 2: Scope Cost Estimate – Huntley Meadows Central Wetland Restoration – Phase 1
Attachment 3: Development Project Fact Sheet -- Huntley Meadows Central Wetland Restoration – Phase 1

STAFF:
Michael A. Kane, Director
Timothy K. White, Chief Operating Officer
Lynn S. Tadlock, Director, Planning and Development Division
Todd Johnson, Director, Park Operations Division
Cindy Messinger, Director, Resource Management Division
Michael Rierson, Manager, Resource Stewardship Branch
Cindy Walsh, Manager, Site Operations Branch
Gary Roisum, Manager, Huntley Meadows Park
Charles Smith, Senior Natural Resource Specialist

Huntley Meadows Central Wetland Restoration



0 700 1,400 2,800 4,200 5,600 Feet

Fairfax County Park Authority

N W E S

Attachment 1

Attachment 2

SCOPE COST ESTIMATE

Huntley Meadows Central Wetland Restoration – Phase I

Hydrology & Soils Analysis	$ 30,000
Environmental Assessment	$ 25,000
Wetlands Permits	$ 10,000
TAMS Report Update	$ 17,000
Wetlands Management Plan	$ 15,000
Design & Construction Plans	$ 148,000
Construction Costs (including mobilization)	$ 415,000
Construction Contract Contingency (10%)	$ 40,000
Total Project Estimate	**$ 700,000**

Attachment 3

DEVELOPMENT PROJECT FACT SHEET

Huntley Meadows Central Wetland Restoration – Phase I

DISTRICT:	Lee
PARK:	Huntley Meadows
PARK CLASSIFICATION:	Natural Resource
PROJECT NAME:	Huntley Meadows Central Wetland Restoration

Project Scope:

- Conduct extensive soils and hydrologic analysis.
- Update TAMS Report to provide historic base line.
- Develop a comprehensive wetland management plan.
- Design project and prepare construction plans.
- Obtain necessary wetland permits.
- Construction of an access road to the wetland site.
- Construction of a water control device on the downstream end of the wetland and possibly a forebay structure at the upstream end to capture and remove future excessive sediment flows.
- Removal and disposal (likely on-site) of accumulated silt/soil (Note: this is likely to be the highest cost item of the project). (Phase II)
- Grade and construct diverse topographic features to include deep pools, open water and interconnecting channels. (Phase II)
- Provide extensive native plantings to stabilize soils and complete habitat restoration. (Phase II)
- Implement a long-term monitoring and maintenance plan to measure success, design corrective measures and control invasive species. (Throughout project and beyond)

Project Funding:

- Project Scope Phase I Cost Estimate: $700,000
- Funding Sources: $700,000 in Project 475004, Stream Restoration Funds, Fund 370, 2004 Park Bond.

Project Timeline:

	Planned Completion
Analysis, Planning & Design	3rd Qtr 2007
Environmental Assessment	3rd Qtr 2007
Public Meetings	2nd & 4th Qtrs 2007
Construction Plans	1st Qtr 2008
Wetland Permitting	2nd Qtr 2008
Construction Phase I	1st Qtr 2009